APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/687,288	10/13/2000	William S. Holmes	155638-0034	8602

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IRELL & MANELLA LLP
840 Newport Center Drive Suite 400
Newport Beach, CA 92660

EXAMINER
MASHAAL, ALI M

ART UNIT	PAPER NUMBER
2136	3

DATE MAILED: 01/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/687,288	HOLMES, WILLIAM S.
	Examiner	Art Unit
	Ali M. Mashaal	2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on *13 October 2000*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-24* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *10/13/2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

1.   This action is in response to the application filed on 10/13/2000.

2.   The IDS filed 2/25/2002 has been considered and an initialed and signed copy

has been attached to this office action.

3.   Claims 1-24 are under examination.

Claim Objections

4.   Claim 7 is objected to because lines 6-8 appear to be repetitious, being similar to

lines 4-7 of base claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.1   Claims 1, 7-12, 14, 18, and 20-23 are rejected under 35 U.S.C. 103(a) as being

unpatentable over US Patent No. 6,282,535 to Pham et al. (Pham) in view of US patent

No. 6,224,387 to Jones.

As per claims 1, 10, 18, and 23, Pham teaches a digital signature method

comprising: converting, on a computer system, digital data representative of a

document into a predetermined format, (see col. 2, lines 6- 18); applying the

predetermined format to a hash function to mathematically operate on the

predetermined format that is a representation of the document (see col. 2, lines 22-33,

and col. 5, lines 8-14); and encrypting the message digest using a private key to provide

a digital signature (see col. 2, lines 22-33, and col. 5, lines 8-14).

Pham does not teach a viewer program also hashed as part of the message

digest.

However, Jones, in an analogous art teaches a viewer program being sent as

part of an email message, the viewer program being associated with the data being sent

(see col. 21, lines 27-49).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the teaching of Jones in the Pham invention by also

including a viewer along with the message. One would have been motivated to do so

because, as taught by Jones, the receiver would no longer need to own the same

program as the sender, and the images transmitted would match by using the provided

viewer (see col. 21, lines 40-49). This would save time and effort, and make the

process autonomous.

As per claims 7 and 20 depending from claims 1 and 18 respectively, Pham

further teaches transmitting the digital signature, and predetermined file format over a

network to a receiver computer system (see col. 4, lines 3-9); decrypting the digital

signature using a public key corresponding to the private key to recover the message

digest (see col. 6, lines 11-25); applying the predetermined format and the viewer

program to a hash function, to mathematically operate on the predetermined format to

provide a calculated message digest (see col. 2, lines 22-33, and col. 5, lines 8-14); comparing the calculated message digest with the recovered message digest (see col. 21, lines 10-19, and col. 22, lines 19-32, and col. 16, lines 35-43); comparing the calculated message digest with the recovered message digest (see col. 6, lines 11-25); if the calculated message digest is identical to the recovered message digest, providing the predetermined format (see col. 6, lines 11-25).

Pham does not teach transmitting a viewer program to the receiving system.

However, Jones, in an analogous art teaches a viewer program being sent as part of an email message, the viewer program being associated with the data being sent, and used to view the data upon receipt on the receiving end (see col. 21, lines 27-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of Jones in the Pham invention by transmitting a viewer along with the message. One would have been motivated to do so because, as taught by Jones, the receiver would no longer need to own the same program as the sender, and the images transmitted would match by using the provided viewer (see col. 21, lines 40-49). This would save time and effort, and make the process autonomous.

As per claims 8 and 21, the Pham-Jones combination teaches all limitations of base claims 1 and 18 respectively. Pham does not teach providing the predetermined format using the viewer program comprises viewing the predetermined format on a monitor using the viewer program. However, Jones further teaches the digital signature method wherein providing the predetermined format using the viewer program

comprises viewing the predetermined format on a monitor using the viewer program

(see Jones, col. 21, lines 35-40), in which the images can be either printed or viewed

using a viewer on the web. It would have been to one of ordinary skill in the art at the

time the invention was made to view the predetermined format on a monitor or to print it

out as taught by Jones. One would have been motivated to do so because viewing the

predetermined format on a monitor using the viewer program would allow a visible and

verifiable physical view of the format on the receiving end.

As per claims 9, 14, and 22 the Pham-Jones combination teaches all limitations

of claims 1, 11 and 18 respectively. Pham does not teach an executable viewer

program. However, Jones further teaches an executable viewer program (see col. 21,

lines 35-40). It would have been to one of ordinary skill in the art at the time the

invention was made to use an executable viewer program. One would have been

motivated to do so because an executable program viewer would have the added

advantage of allowing the receiver to simply execute the viewer program in order to

view the predetermined format so as not to require the receiver to have the software on

their machine (see col. 21, lines 45-49).

As per claim 11, Pham teaches a system comprising a network (see col. 7, lines

37-43), a first computer system including a processor and memory (see col. 7 lines 34-

36 in which a Unisys A Series computer is disclosed, which examiner respectfully

asserts must include a processor and memory by definition of a computer, also see col.

8, lines 20-25); including digital data representative of a document (see col. 2, lines 6-

18), said processor to convert the document into a predetermined format (see col. 2,

lines 6- 18), apply the predetermined format to a hash function and provide a message

digest (see col. 2, lines 22-33, and col. 5, lines 8-14), encrypt the message digest with a

private key to provide a digital signature (see col. 2, lines 22-33, and col. 5, lines 8-14),

and transmit the predetermined format, and digital signature over the network (see col.

4, lines 3-9); a second computer system including a processor and memory, said

processor to receive the predetermined format (col. 7, lines 38-43, and col. 8 lines 31-

39) and digital signature over the network (see col. 5, lines 8-14, and col. 2, lines 23-

29), decrypt the digital signature using a public key corresponding to the private key ,

recover the message digest, apply the predetermined format to a hash function to

provide a calculated message digest, compare the calculated message digest with the

recovered message digest, (see col. 5, line 64-col. 5, line-25). If the calculated

message digest is identical to the recovered message digest, view the predetermined

format (see col. 5, lines 8-14).

Pham does not teach a viewer program also hashed as part of the message

digest.

However, Jones, in an analogous art teaches a viewer program being sent as

part of an email message, the viewer program being associated with the data being sent

and used in order to view the predetermined format on the receiving computer (see col.

21, lines 27-49).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the teaching of Jones in the Pham invention by also

including a viewer along with the message. One would have been motivated to do so

because, as taught by Jones, the receiver would no longer need to own the same

program as the sender, and the images transmitted would match by using the provided

viewer (see col. 21, lines 40-49). This would save time and effort, and make the

process autonomous.

As per claim 12, Pham teaches transmittal of the predetermined format over the

Internet (see abstract).

5.2   Claims 2-4, and 15-17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over US Patent No. 6,282,535 to Pham et al. (Pham) in view of US patent

No. 6,224,387 to Jones as applied to claim 1 above, and further in view of US Patent

No. 6,091,835 to Smithies et al. (Smithies).

As per claims 2, 3, 15, and 16 the Pham-Jones combination teaches the method

of base claims 1, and 11. The Pham-Jones combination does not teach incorporating

into the digital signature a file including one or more parameters specifying an

environment of the computer system at the time of the creation of the digital signature,

wherein the one or more parameters include one or both of a type and version of one or

more of the following: a video card, monitor, operating system, application program, and

signing interface library of the computer system.

However, Smithies in an analogous art, teaches incorporating into the digital

signature a file which includes one or more parameters specifying an environment of the

computer system at the time of the creation of the digital signature, wherein the one or

more parameters include one or both of a type and version of one or more of the following: a video card, monitor, operating system, application program, and signing interface library of the computer system (see table, col. 39, line 17- col. 40 line 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the environmental parameters as taught by Smithies as part of the digital signature in the Pham-Jones combination. One would have been motivated to do so because, as taught by Smithies, a digital signature alone may not be trusted enough, and so a complete record of the environment would further affirm the validity of the signature (see background). This information would be pivotal in the event of a legal dispute over whether the obligations of a transaction should be enforced against the affirming party, see col. 4, lines 48-64.

As per claims 4 and 17, the Pham-Jones combination teaches the method of base claim 1, and 11 respectively. The Pham-Jones combination does not teach further comprising timestamping the digital signature using a trusted source.

However, Smithies in an analogous art, teaches timestamping the digital signature using a trusted source (see table, col. 39, line 17- col. 40 line 12, 2nd and last steps).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a timestamp as taught by Smithies as part of the digital signature in the Pham-Jones combination. One would have been motivated to do so because, as taught by Smithies, the timestamp could be used in order to affirm that the inputs of the affirming party are not automatically entered, and rather entered by the

affirming party. The timestamping may also be used as evidence that the affirming

party validly affirmed the document (see col. 13, line 42-col. 14, line 4). This information

would be pivotal in the event of a legal dispute over whether the obligations of a

transaction should be enforced against the affirming party, see col. 4, lines 48-64.

5.3   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US

Patent No. 6,282,535 to Pham et al. (Pham) in view of US patent No. 6,224,387 to

Jones as applied to claim 1 above, and further in view of US Patent No. 5,001,752 to

Fischer.

As per claim 5, the Pham-Jones combination teaches the method of base claim

1. The Pham-Jones combination does not teach further comprising notarizing the digital

signature.

However, Fischer in an analogous art, teaches notarizing the digital signature

(see col. 7, lines 31-52).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to notarize the digital signature as taught by Fischer as part of the

digital signature in the Pham-Jones combination. One would have been motivated to do

so because, as taught by Fischer, the time-stamped notarized signature would serve as

a notarized record showing that the object that was signed did exist at the specified

moment (see col. 7, lines 31-52).

5.4   Claim 6, 13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable

over US Patent No. 6,282,535 to Pham et al. (Pham) in view of US patent No.

6,224,387 to Jones as applied to claims 1, 11, and 18 above respectively, and further in

view of "Introduction to Computer Graphic/Image File Formats" to Barnette.

As per claim 6, 13, and 19, the Pham-Jones combination teaches the method of

base claims 1, 11, and 18 respectively. The Pham-Jones combination does not teach

that the predetermined format is a bitmap representation.

However, Barnette in an analogous art, teaches representing documents

formatted as bitmap representation. It would have been obvious to one of ordinary skill

in the art at the time the invention was made to use a bitmap representation as the

predetermined format of the document. One would have been motivated to do so

because, as taught by Barnette, a bitmap representation such as a postscript file is a

lossless data format (page 4, under "Postscript/Encapsulated Postscript"). The

advantage of having a lossless data format is that the file will remain the same way as it

was originally created, thus minimizing distortion. Furthermore, such a format would be

necessary in order to authenticate the file with a digital signature.

5.5   Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over

US Patent No. 6,282,535 to Pham et al. (Pham) in view of US patent No. 6,091,835 to

Smithies, and further in view of US Patent No. 5,995,756 to Herrmann.

As per claim 24, Pham teaches a digital signature method comprising: converting, on a computer system, digital data representative of a document into a predetermined format, (see col. 2, lines 6- 18); digitally signing the predetermined format to provide a digital signature (see col. 2, lines 22-33, and col. 5, lines 8-14); transmitting the digital signature, the predetermined format (see col. 4, lines 3-9), decrypting and verifying the digital signature on the second computer system (see col. 6, lines 11-25, col. 21, lines 10-19, col. 22, lines 19-32, and col. 16, lines 35-43).

Pham does not teach transmitting a file including one or more parameters from the first computer system to a second computer system. Also Pham does not teach using the one or more parameters of the file, downloading a viewer module from a third computer system to the second computer system, said one or more parameters being used to identify the viewer module on said third computer system; and viewing the predetermined format using the viewer module to provide the representation of the document.

However, Smithies in an analogous art, teaches transmitting a file including one or more parameters from the first computer system to a second computer system (see table, col. 39, line 17- col. 40 line 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the environmental parameters as taught by Smithies as part of the digital signature in the Pham-Jones combination. One would have been motivated to do so because, as taught by Smithies, a digital signature alone may not be trusted enough, and so a complete record of the environment would further affirm the

validity of the signature (see background). This information would be pivotal in the event of a legal dispute over whether the obligations of a transaction should be enforced against the affirming party, see col. 4, lines 48-64.

The Pham-Smithies combination teaches a digital signature method comprising: converting, on a computer system, digital data representative of a document into a predetermined format; digitally signing the predetermined format to provide a digital signature; transmitting the digital signature, the predetermined format, and a file including one or more parameters from the first computer system to a second computer system; and decrypting and verifying the digital signature on the second computer system.

The Pham-Smithies combination fails to teach using the one or more parameters of the file, downloading a viewer module from a third computer system to the second computer system, said one or more parameters being used to identify the viewer module on said third computer system; and viewing the predetermined format using the viewer module to provide the representation of the document.

However, Herrmann in an analogous art teaches a parameter of a file, namely the file extension, downloading a viewer module from a third computer system to the second computer system, said one or more parameters being used to identify the viewer module on said third computer system; and viewing the predetermined format using the viewer module to provide the representation of the document (see col. 3, lines 32-59). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Pham-Smithies combination such that it would use a

parameter from the transcript taught by Smithies in order to download a file viewer

compatible to predetermined format to provide the representation of the document as

taught by Herrmann's MIME procedure. One would have been motivated to do so

because MIME provides a standardized technique for packaging a document object

(see col. 3, lines 32-39).

Conclusion

6.1   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

The following is a list of pertinent US Patents:

5,001,752
5,598,473
5,303,361
5,729,741
5,680,455
6,081,610
6,091,835
6,224,387
6,282,535
6,389,421
6,611,599
5,995,756

The following is a list of pertinent nonpatent literature:

N. Dwight Barnette. Introduction to Computer Graphic/Image File Formats. 5/25/1996.

6.2   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ali M. Mashaal whose telephone number is 703-305-

7854. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for

the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

3900.

AM

EMMANUEL L. MOISE
PRIMARY EXAMINER